

Serial No. 09/498,949
Filed February 4, 2000
AMENDMENT AND
RESPONSE TO OFFICE ACTION

In the Claims

Please cancel claims 1-39 without prejudice or disclaimer.

Please add the following new claims.

40. (New) A composition comprising a compound which binds to tryptophan synthase and inhibits tryptophan synthesis and which is effective as a herbicide.

41. (New) The composition of claim 40, wherein the compound is identified by a method comprising the steps:

adding a test compound to an *in vitro* assay comprising tryptophan synthase or at least one subunit thereof, said *in vitro* assay being adapted for detecting the activity of said tryptophan synthase or subunit thereof; and

determining whether tryptophan synthase is inhibited by said test compound.

42. (New) The composition of claim 41, wherein the method further comprises determining whether said test compound which has been determined to inhibit tryptophan synthase is effective as a herbicide.

43. (New) The composition of claim 42, wherein determining whether said test compound is effective as a herbicide comprises adding the test compound to an *in vivo* assay for detecting herbicidal activity.

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44. (New) The composition of claim 40, wherein the compound is an aryl sulfide phosphonate.

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45. (New) The composition of claim 40, wherein the composition comprises an ester or salt form of the compound.

46. (New) The composition of claim 40, wherein the compound is dispersed in an aqueous carrier.
